

**AL AGER WATER COMPACT UNIT
NASSRIYA, IRAQ**



**SIGIR PA-08-129
JULY 22, 2008**

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SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

July 22, 2008

MEMORANDUM FOR COMMANDING GENERAL, MULTI-NATIONAL FORCES-IRAQ
COMMANDING GENERAL, JOINT CONTRACTING COMMAND-
IRAQ/AFGHANISTAN
COMMANDING GENERAL, GULF REGION DIVISION, U.S.
ARMY CORPS OF ENGINEERS
DIRECTOR, IRAQ TRANSITION ASSISTANCE OFFICE

SUBJECT: Report on Construction of the Al Ager Water Compact Unit, Nassriya, Iraq (Report Number SIGIR PA-08-129)

The Office of the Special Inspector General for Iraq Reconstruction is assessing projects funded under the Economic Support Fund to provide real-time relief and reconstruction information to interested parties to enable appropriate action, when warranted.

We are providing this report for your information and use. It addresses the current status of the Al Ager Water Compact Unit, Nassriya, Iraq and whether intended objectives will be achieved.

This report does not contain any recommendations for corrective action. As a result, management comments were not required. Representatives of the Gulf Region Division of the U.S. Army Corps of Engineers reviewed a draft of this report and had no comments.

We appreciate the courtesies extended to our staff. If you have any questions please contact Mr. Brian M. Flynn at brian.flynn@sigir.mil or at 914-360-0607. For public queries concerning this report, please contact SIGIR Public Affairs at publicaffairs@sigir.mil or at 703-428-1100.

Stuart W. Bowen, Jr.
Inspector General

Special Inspector General for Iraq Reconstruction

SIGIR PA-08-129

July 22, 2008

Al Ager Water Compact Unit, Nassriya, Iraq

Synopsis

Introduction. The Special Inspector General for Iraq Reconstruction initiated this project assessment as part of its continuing assessments of selected activities of the Economic Support Fund. SIGIR conducted this project assessment in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included a professional engineer/inspector and an auditor/inspector.

Project Objective. The objective of the Al Ager Water Compact Unit project was to design and construct a new compact-unit water treatment plant with the capacity to treat 50 cubic meters of water per hour. The water treatment plant was to contain a reverse osmosis unit, an above-ground storage reservoir, a pipe network connecting to the existing water network, and a perimeter fence.

Project Assessment Objectives. The objective of this project assessment was to provide real-time information on relief and reconstruction projects to interested parties to enable appropriate action to be taken, when warranted. Specifically, SIGIR addressed these questions:

1. Were the project components adequately designed before construction or installation?
2. Did the construction or rehabilitation meet the standards of the design?
3. Were quality management programs being used adequately?
4. Was the sustainability of the project addressed?
5. Were the project results consistent with the original objectives?

Conclusions. The assessment determined that:

1. Adequate design documentation for the project components was not available for the Al Ager Water Compact Unit project. Specifically, the contractor's design package was not complete and lacked sufficient details. The design package did not provide a system overview detailing the process by which raw water entered the clarifier, was converted to drinking water, and then released into the distribution system. In addition, the available design documentation lacked basic items, such as the piping configurations, equipment locations and sizes, building layouts, electrical plans, and structural drawings. Additionally, no information on the type, sizes, and specifications of the proposed reverse osmosis unit were provided.

Using a proactive approach, the United States Army Corps of Engineers, Gulf Region South is creating a standardized 70% design for the remaining compact-unit water treatment plants to be constructed in the Thi Qar governorate, which also will have the capacity of 50 cubic meters per hour. Gulf Region South

representatives believe that a standardized design will reduce both the completion time for the remaining projects and the contract costs.

2. At the time of the SIGIR site visit, the project was 17% complete. In general, the construction appeared to meet the standards of the Statement of Work. During its two visits to the project site, the inspection team did not observe significant deficiencies. The observed construction work associated with the Al Ager Water Compact Unit appeared to meet the standards of the contract.
3. The contractor's quality control plan was inadequate to guide the contractor's quality management program. Specifically, the quality control plan lacked explicit details regarding the use of daily quality control reports, identification and correction of construction deficiencies, and testing requirements. The contract required that the contractor maintain weekly progress reports and construction inspection reports. After reviewing the contractor's daily and weekly quality control reports, SIGIR found them to be insufficient. For example, the contractor provided only five daily and weekly quality control reports. Even though the quality control reports contained project specific information—such as work activities performed, materials received, and testing performed—the lack of a sufficient number of quality control reports is inadequate for an effective quality management program.

Despite the weaknesses in contractor quality control, the government's quality assurance program was effective in ensuring that the construction of the Al Ager Water Compact Unit project was adequate. The United States Army Corps of Engineers quality assurance representatives maintained daily quality assurance reports, which documented deficiencies identified at the site. SIGIR found the quality assurance reports to be sufficiently complete, accurate, and timely. In addition to containing project-specific information to document construction progress and highlight deficiencies, the quality assurance representatives also supplemented the daily quality assurance reports with detailed photographs that reinforced the narrative information provided in the reports. Further, the quality assurance team followed up on any reported deficiencies to confirm that the contractor took the necessary corrective actions. The government's effective quality assurance program compensated for the inadequate contractor quality control program and is ensuring the successful completion of the Al Ager Water Compact Unit project.

4. Sustainability was addressed in the contract requirements. The contract specifications required the contractor to provide and certify warranties for all material or equipment—including mechanical, electrical, and electronic devices—and all operations for one year from the date of transfer to the Water Ministry. In addition, the contract required the contractor to supply spare parts for one year of the plant operations and all chemicals and replacement filters for eight weeks of continuous operation. The contractor must also provide four weeks of training for operators on project operations and maintenance at the new compact-unit water treatment plant.
5. The objective of the Al Ager Water Compact Unit project was to design and construct a new compact-unit water treatment plant with a reverse osmosis unit, an above-ground storage reservoir, a pipe network connecting to the existing water network, and a perimeter fence for the new facility. To date, the Al Ager Water Compact Unit project results are consistent with the original contract objectives. If the current quality of construction and effective project management

by the United States Army Corps of Engineers, Gulf Region South continue, a new compact unit water treatment plant with the capacity to treat 50 cubic meters of water per hour will be completed, providing much-needed safe drinking water to the local community. A 50 cubic meter per hour compact water unit could serve a population of 5,000 or more persons a day.

Recommendations and Management Comments. This report does not contain any recommendations for corrective action; therefore, management comments were not required. Representatives of the Gulf Region Division of the United States Army Corps of Engineers reviewed a draft of this report and had no comments.

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Introduction

Objectives of the Project Assessment

The SIGIR objective of this project assessment was to provide real-time relief and reconstruction project information to interested parties to enable appropriate action to be taken, when warranted. Specifically, we determined whether:

1. Project components were adequately designed prior to construction or installation;
2. Construction or rehabilitation met the standards of the design;
3. Quality management programs were being utilized adequately;
4. Project sustainability was addressed; and
5. Project results were consistent with original objectives.

Pre-Site Assessment Background

Contract, Task Order and Costs

The Al Ager Water Compact Unit (WCU) project was initiated under Contract W917BK-07-C-0045, dated 25 July 2007, a firm fixed price construction contract in the amount of \$650,000. The contract was between the U.S. Army Corps of Engineers (USACE), Gulf Region South (GRS) and a local contractor. After receiving the Notice to Proceed (NTP), the contractor was to complete construction within 180 calendar days. The NTP was issued on 12 August 2007.

Modification P00001, dated 29 November 2007, extended the contractor's period of performance by 120 calendar days from 19 January 2008 to 10 May 2008, due to relocation of the project.

Project Objective

The overall objective of the Al Ager WCU project was to provide access for the rural population to safe drinking water and to reduce the incidence of waterborne disease, while maximizing the employment opportunities for local Iraqis through the use of local contractors, suppliers, craftsmen, laborers, and women. Based on the description of work, the objective of the project was to design and construct a new 50 cubic meter per hour (m³/hr) compact unit water treatment plant. A 50-m³/hr compact water unit could serve a population of 5,000 or more persons a day. The water treatment plant was to contain a reverse osmosis (RO) unit, an above ground storage reservoir, approximately 1,000 linear meters (m) of 110 millimeter (mm) polyvinyl chloride (PVC), connection to the existing water network, and a perimeter fence measuring approximately 50-m x 30-m.

Description of the Facility (preconstruction)

The description of the facility (preconstruction) was based on information obtained from the contract and the USACE project file. The Al Ager WCU project is located in the middle of the village of Al Haboosh. The town of Al Ager is located approximately two kilometers to the northwest (Figures 1 and 2). The site is accessible via dirt and gravel roads, which become muddy during the rainy season.

Al Haboosh is a poor village, and the local houses are single story mud-brick type. On 1 October 2007, the Sheikh of Al-Haboosh donated part of his land to establish a water desalination station and network extending pipelines into Al Haboosh Village.

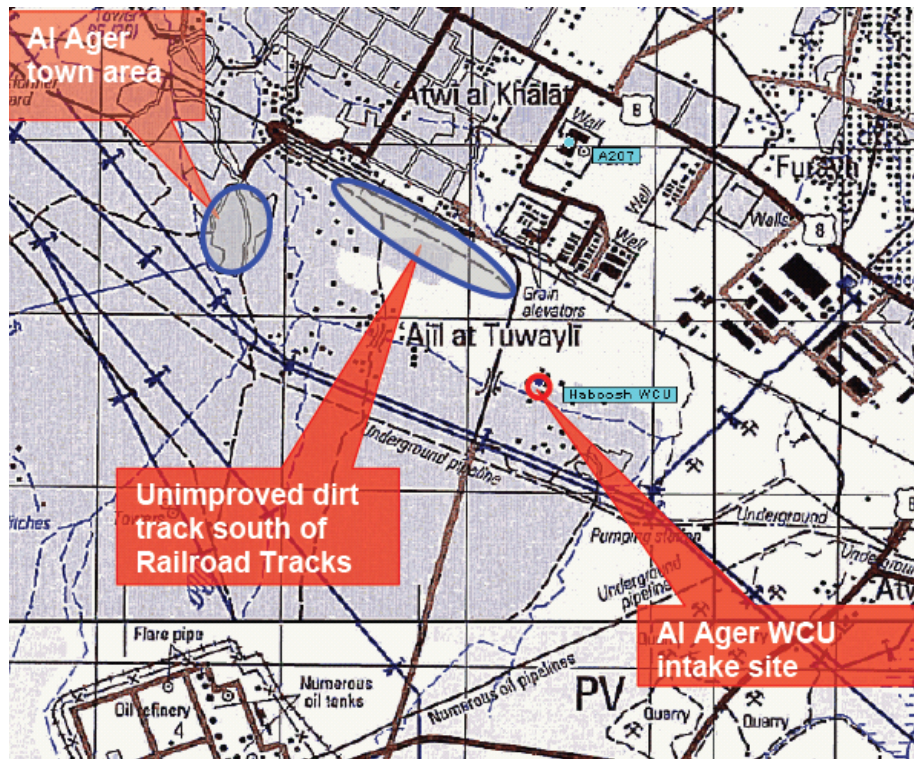


Figure 1. FalconView map of Al Ager WCU (Courtesy of the USACE)

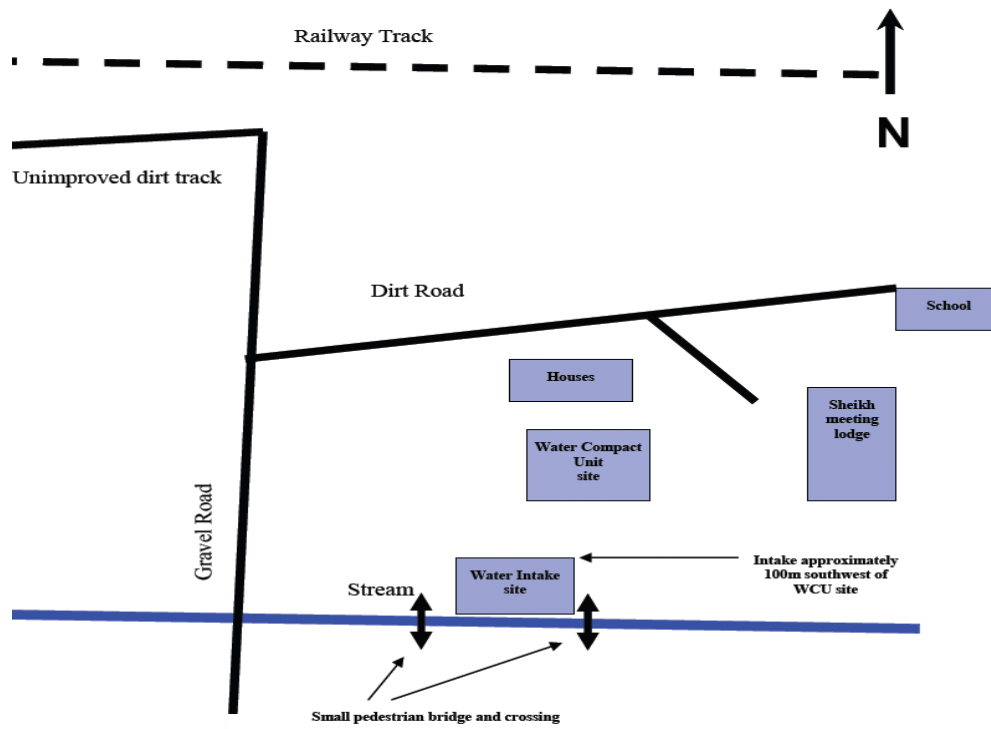


Figure 2. Aegis sketch of Al Ager WCU (Courtesy of the USACE)

Statement of Work

The contract's Statement of Work for the project required the contractor to design, build, and commission a new 50-m³/hr compact unit water treatment plant. The Al Ager WCU project consisted of the design and construction of the following:

- raw water inlet structure
- reinforced concrete slab for compact unit
- 50-m³/hr compact unit water treatment plant
- sunshade to cover filters
- elevated storage reservoir
- reinforced concrete slab for generator and diesel storage tank
- pipe network connecting to the existing water network
- gate house, operator, and chemical buildings
- 50-m by 30-m perimeter fence with six elevated lighting columns

Current Project Design and Specifications

The contract's Statement of Work stated that the contractor was to include, but not limited to, a topographic survey, a site plan with grading, building layouts, sidewalks, foundations for buildings, perimeter walls, an equipment pad, an intake tower, sunshade steel structures, a network distribution calculation, and major equipment catalog cuts and calculations.

In addition, the contract specified conformance to the standards of the original design where repair and refurbishment is required. However, where new material or equipment has been specified, the contract required conformance to the British or equivalent international codes and standards. For the construction of the 50-m³/hour water compact unit, all items of work were to be in compliance with the specifications and standards of the Iraqi Ministry of Water and the Local Directorate General for Water.

The USACE provided SIGIR with copies of the contractor's Al Ager WCU project designs and specifications documentation. The designs included a concrete slab detail sheet for the RO and other mechanical units, architectural elevations of the proposed buildings, preliminary network piping drawings, sunshade steel structures, and a preliminary site layout. However, the contractor did not provide design documents for the topographic survey, site plan with grading, building layouts, sidewalks, foundations for buildings, or the perimeter walls. SIGIR's review of the design drawing and specification documents also considered the contract requirements, as well as discussions with the USACE Officer in Charge. SIGIR determined that the contractor's design documentation was not complete and lacked sufficient detail for construction of the 50-m³/hr compact unit water treatment plant. The overall design did not take into consideration the sequencing of work for civil and site utilities, or the architectural, electrical, mechanical, plumbing, and structural drawings. The designs did not provide a topographic survey and a site plan with grading, building layouts, sidewalks, foundations for buildings, or perimeter walls.

After reviewing all available design drawings and specifications, SIGIR determined the design package was not complete, was inconsistent with the contract's requirements, and lacked sufficient details. Specifically, the designs did not provide a system overview detailing the process of raw water entering the clarifier, being

converted to drinking water, and then released to the distribution system. In addition, the designs lacked basic items such as the piping configurations, equipment locations and sizes, building layouts, electrical plans, and structural drawings. Additionally, no information on the type, sizes and specifications of the proposed RO units were provided.

Further, the design package lacked architectural, civil, electrical, mechanical, and structural drawings for the chemical and operator buildings and a foundation plan and conceptual layout of the elevated storage reservoir.

Gulf Region South Positive Action

Discussions with the USACE GRS staff identified continuing frustration with local Iraqi contractors over inadequate construction designs and an inordinate amount of time to prepare them. In a proactive response to these problems, the USACE GRS is attempting to standardize a 70% design for the remaining 50-m³/hour water compact unit treatment plants to be constructed in the Thi Qar governorate¹. A GRS engineer, with assistance from the Department of State and the Iraqi Directors General from Muthanna and Thi Qar governorates, has prepared the standardized 70% design. According to GRS representatives, the 70% design will reduce both the completion time for the remaining projects and contract costs. In addition, the standardized designs will provide a consistent layout for the 50-m³/hour water compact unit treatment plants, and the Iraqi contractors will provide the finishing details for the 70% designs.

Site Assessment

On 18 February 2008 and 13 May 2008, a SIGIR assessment team, accompanied by the GRS project engineer, performed on-site assessments of the Al Ager WCU project. On the first site visit, the contractor had crews working on the project; while on the second site visit, there were no crews working. SIGIR had to conduct expedited assessments of approximately 30 minutes each because of the security concerns at the project site.

Status of Project

According to the Iraq Reconstruction Management System database and the USACE project engineer, the project was 17% complete. The contract required the contractor to complete the project within 180 days of the NTP, which GRS issued on 12 August 2007.

Work Completed

Prior to construction, the contractor cleared and leveled the site. This included filling in holes on the site and achieving satisfactory 95% soil compaction (Site Photo 1). The contractor had completed the 50-m³/hr compact unit water treatment plant reinforced concrete slab (Site Photo 2) and the reinforced concrete slab for the generator and diesel storage tank (Site Photo 3).

¹ According to GRS representatives, 17 additional water compact unit treatment plants will be awarded to local Iraqi contractors over the next several months.



Site Photo 1. Spreading of sub base before compaction (Courtesy of the USACE)



Site Photo 2. Water compact unit foundation



Site Photo 3. Future generator pad

No other significant work elements were completed prior to the site visit for the project.

Work in Progress

SIGIR observed significant work underway in the Al Ager WCU construction area. For example, for the security of the plant and its operators, the Statement of Work required exterior perimeter fencing, consisting of brick and topped with three strands of barbed wire. During the second site visit, SIGIR determined that the exterior site fencing was nearly completed (Site Photo 4), excluding the three strands of barbed wire (Site Photo 5).



Site Photo 4. Perimeter wall



Site Photo 5. Close-up of Site Photo 4--required barbed wire not installed

At the time of the second site visit, the contractor had started construction of the operator building (Site Photo 6) and chemical building (Site Photo 7), including the installation of the crane (Site Photo 8).



Site Photo 6. Operator building



Site Photo 7. Chemical building



Site Photo 8. Crane placement

Work Pending

Since the Al Ager WCU project was reported as 17% complete at the time of the site visit, there is still significant work required to complete the project. The contractor still must install and commission several pieces of equipment, such as the compact RO unit, two raw water submersible pumps, the generator, the crane in the chemical building, and the elevated storage tank. In addition, the contractor must supply,

install, and commission several pieces of equipment, such as the new chlorination equipment, new alum dosing equipment, and two new split case settled water pumps.

After all equipment has been installed and commissioned, the contractor must perform the final systemization, testing, and commissioning of the plant.

Project Quality Management

Contractor's Quality Control Program

Department of the Army Engineering Regulation 1180-1-6, dated 30 September 1995, provides general policy and guidance for establishing quality management procedures in the execution of construction contracts. According to ER 1180-1-6, "...quality construction is a combined responsibility of the construction contractor and the government."

The contract required that the contractor provide a quality control (QC) plan, which would describe the full extent of QC measures for acceptance and performance of QC throughout the duration of the design, construction, installation, testing, and commissioning of the project. The contractor submitted a nine-page QC plan, which included a brief responsibilities list for general employees, project engineers, field engineers and construction representatives. The contractor's QC plan was inadequate to guide the contractor's quality management program. Specifically, the QC plan lacked explicit details regarding the use of daily QC reports, identification and correction of construction deficiencies, and testing requirements.

The contract required that the contractor maintain weekly progress and construction inspection reports. The contract required the reports include significant construction activities, such as daily site work, materials procured and received, actual versus planned progress recorded on the schedule, site and progress photos, construction inspection reports, testing and inspection reports, and contractor's manpower schedule, which includes the number of workers and how many workers are women.

Even though the contract required QC reports, the contractor did not provide any QC reports for 2007. Upon arriving at the GRS, the new project engineer attempted to enforce the QC report requirement, which has led to the contractor submitting 12 QC reports this year. The QC reports generally identified the contractor's daily activities, the labor strength and production of the various trades for the day, and included photographs, which documented various stages of construction, such as compaction of the site, pouring of the water compact unit foundation, and the generator pad completion. However, the QC reports were far too sporadic to provide meaningful information to the GRS project engineer. In addition, the QC reports did not identify any significant construction deficiencies.

SIGIR's review of the contractor's QC plan and reports determined that the overall QC program was inadequate.

Government Quality Assurance Program

The USACE ER 1110-1-12 and PCO Standard Operating Procedure CN-100 specified requirements for a government quality assurance (QA) program. Similar to the QC program, a crucial oversight technique is presence at the construction site. The

USACE GRS, which was responsible for administration of the Al Ager WCU project, had dedicated personnel on site during significant construction activities.

The USACE GRS trained the Iraqi Construction Engineers (ICE), local nationals with engineering backgrounds working for the USACE, and deployed them to the project site to perform QA oversight of the contractor. The ICE were on site during construction events, and monitored field activities and completed daily QA reports, which were forwarded to the USACE GRS project engineer for review. The QA reports documented significant construction activities, such as work performed by building, equipment on site, safety concerns, testing done, and the name and location of the testing facility. In addition, the ICE submitted photographs of construction activities taking place throughout the day. Further, the ICE noted any problems/deficiencies identified and the correction actions taken via deficiency logs.

The government's QA program compensated for the inadequate contractor QC program and is ensuring the successful completion of the Al Ager WCU project.

Project Sustainability

Commissioning, Training, & Operations and Maintenance

The contract required the contractor prepare for the USACE resident/project engineer's review and approval of a commissioning plan, and provide four weeks of training for ten operators on project operations and maintenance (O&M) at the new water compact unit.

In addition, the contract required the contractor provide O&M support during the construction, startup, and commissioning phases of the project and continue for 90 days after the issuance of the Letter of Project Completion. Also, the contract required the contractor to provide O&M manuals, including standard operation procedures for all equipment and systems, as well as standard maintenance procedures.

Warranties and Supplies

The contract required the contractor provide and certify warranties for all material or equipment that includes any mechanical, electrical and/or electronic devices, and all operations for one year from the date of transfer to the Water Ministry. In addition, the contractor must supply spare parts for one year of the plant operations and all chemicals and replacement filters for eight weeks of continuous operation.

Conclusions

Based upon the results of our site visit, SIGIR reached the following conclusions for assessment objectives 1, 2, 3, 4, and 5. Appendix A provides details pertaining to Scope and Methodology.

1. Determine whether project components were adequately designed prior to construction or installation.

Adequate design documentation for the project components was not available for the Al Ager WCU. Specifically, the contractor's design package was not complete and

lacked sufficient details. Specifically, the design package did not provide a system overview detailing the process of raw water entering the system through it being converted to drinking water and then released to the distribution system. In addition, the designs lacked basic items such as the piping configurations, equipment locations and sizes, building layouts, electrical plans, and structural drawings. Additionally, no information on the type, sizes and specifications of the proposed reverse osmosis unit was provided.

In a proactive approach, the USACE, GRS is creating a standardized 70% design for the remaining 50 m³/hr water compact unit treatment plants to be constructed in the Thi Qar governorate. GRS representatives believe a standardized design will reduce both the completion time for the remaining projects and contract costs.

2. Determine whether construction met the standards of the design.

At the time of the site visit, the project was 17% complete. In general, the construction appeared to meet the standards of the Statement of Work. The inspection team did not observe significant deficiencies during its two visits to the project site. The observed construction work associated with the Al Ager WCU appeared to meet the standards of the contract.

3. Determine whether the contractor's quality control plan and the government's quality assurance program were adequate.

The contractor's QC plan was inadequate to guide the contractor's quality management program. Specifically, the quality control plan lacked explicit details regarding the use of daily QC reports, identification and correction of construction deficiencies, and testing requirements. The contract required that the contractor maintain weekly progress reports and construction inspection reports. After reviewing the contractor's daily and weekly QC reports, SIGIR found them to be insufficient. For example, the contractor only provided a total of five daily and weekly QC reports. Even though the QC reports contained project specific information, such as work activities performed, materials received, and testing performed, the lack of a sufficient number of QC reports is inadequate for an effective quality management program.

Despite the weaknesses in contractor quality control, the government's QA program was effective in ensuring that the construction of the Al Ager WCU project was adequate. The USACE QA representatives maintained daily QA reports, which documented deficiencies identified at the site. SIGIR found the QA reports to be sufficiently complete, accurate, and timely. In addition to containing project specific information to document construction progress and highlight deficiencies, the QA representatives also supplemented the daily QA reports with detailed photographs that reinforced the narrative information provided in the reports. Further, the QA team followed up on any reported deficiencies to confirm the contractor took the necessary corrective actions. The government's effective QA program compensated for the inadequate contractor QC program and is ensuring the successful completion of the Al Ager WCU project

4. Determine if project sustainability was addressed.

Sustainability was addressed in the contract requirements. The contract specifications required the contractor to provide and certify warranties for all material or equipment that includes any mechanical, electrical and/or electronic devices, and all operations for one year from the date of transfer to the Water Ministry. In addition, the contract

required the contractor supply spare parts for one year of the plant operations, all chemicals and replacement filters for eight-weeks of continuous operation, and provide four weeks of training for operators on project operations and maintenance at the new water compact unit.

5. Determine whether project results were consistent with original objectives.

The objective of the Al Ager WCU project was to design and construct a new 50-m³/hour compact water treatment plant with a reverse osmosis unit, an above ground storage reservoir, a pipe network connecting to the existing water network, and a perimeter fence for the new facility. The Al Ager WCU project results, to date, are consistent with the original contract objectives. If the current quality of construction and effective project management by the USACE, GRS continue, a new 50-m³/hr compact unit water treatment plant will be completed, which will provide much needed safe drinking water to the local community. A 50-m³/hr compact water unit could serve a population of 5,000 or more persons a day.

Recommendations and Management Comments

This report does not contain any recommendations for corrective action; therefore, management comments were not required. Representatives of the Gulf Region Division of the U.S. Army Corps of Engineers reviewed a draft of this report and had no comments.

Appendix A. Scope and Methodology

SIGIR performed this project assessment from February through June 2008 in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency. The assessment team included an auditor/inspector and a professional engineer/inspector.

In performing this Project Assessment SIGIR:

- Reviewed contract documentation to include the following: contract, modification, Statement of Work, and notice to proceed;
- Reviewed the design package (drawings and specifications), quality control plan, contractor's quality control reports, U.S. Army Corps of Engineers quality assurance reports, regional liaison team reports, construction progress photos;
- Interviewed the U.S. Army Corps of Engineers, Gulf Region South Officer In Charge/area engineer and the design engineer; and
- Conducted on-site assessments of the Al Ager Water Compact Unit on 18 February 2008 and 13 May 2008 and documented the results.

Appendix B. Acronyms

ER	Engineering Regulation
GRS	Gulf Region South
ICE	Iraqi Construction Engineers
m	meter
m ³ /hr	cubic meters per hour
QA	Quality Assurance
QC	Quality Control
SIGIR	Special Inspector General for Iraq Reconstruction
USACE	United States Army Corps of Engineers
WCU	Water Compact Unit

Appendix C. Report Distribution

Department of State

Secretary of State

Senior Advisor to the Secretary and Coordinator for Iraq

Director of U.S. Foreign Assistance/Administrator, U.S. Agency for International Development

Director, Office of Iraq Reconstruction

Assistant Secretary for Resource Management/Chief Financial Officer,
Bureau of Resource Management

U.S. Ambassador to Iraq

Director, Iraq Transition Assistance Office

Mission Director-Iraq, U.S. Agency for International Development

Inspector General, Department of State

Department of Defense

Secretary of Defense

Deputy Secretary of Defense

Under Secretary of Defense (Comptroller)/Chief Financial Officer

Deputy Chief Financial Officer

Deputy Comptroller (Program/Budget)

Deputy Assistant Secretary of Defense-Middle East, Office of Policy/International Security Affairs

Inspector General, Department of Defense

Director, Defense Contract Audit Agency

Director, Defense Finance and Accounting Service

Director, Defense Contract Management Agency

Department of the Army

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Principal Deputy to the Assistant Secretary of the Army for Acquisition,
Logistics, and Technology

Deputy Assistant Secretary of the Army (Policy and Procurement)

Commanding General, Joint Contracting Command-Iraq/Afghanistan

Assistant Secretary of the Army for Financial Management and Comptroller

Chief of Engineers and Commander, U.S. Army Corps of Engineers

Commanding General, Gulf Region Division

Chief Financial Officer, U.S. Army Corps of Engineers

Auditor General of the Army

U.S. Central Command

Commanding General, Multi-National Force-Iraq

Commanding General, Multi-National Corps-Iraq

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 Subcommittee on Defense
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Senate Committee on Armed Services
Senate Committee on Foreign Relations
 Subcommittee on International Development and Foreign Assistance, Economic Affairs, and International Environmental Protection
 Subcommittee on International Operations and Organizations, Democracy and Human Rights
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Senate Committee on Homeland Security and Governmental Affairs
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 Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia
Permanent Subcommittee on Investigations

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Appendix D. Project Assessment Team Members

The Office of the Assistant Inspector General for Inspections, Office of the Special Inspector General for Iraq Reconstruction, prepared this report. The principal staff members who contributed to the report were:

Angelina Johnston

Todd Criswell, P.E.